



Docket No.: 34650-00179USC3
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Torbjörn Gärdenfors et al.

Application No.: 10/822594

Group Art Unit: 2635

Filed: April 12, 2004

Examiner: B. A. Zimmerman

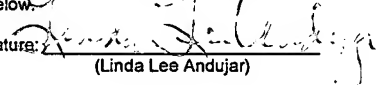
For: RADIO TRANSCEIVER ON A CHIP

TRANSMITTAL LETTER

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated: March 7, 2005

Signature: 
(Linda Lee Andujar)

Dear Sir:

Enclosed are the following items for filing in connection with the above-referenced Patent Application:

1. Information Disclosure Statement (1 page) and
2. IDS (Citation) by Applicant (42 References) (2 pages).

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 10 0447, under Order No. 34650-00179USC3. A duplicate copy of this paper is enclosed.

Dated: March 7, 2005

Respectfully submitted,

By 

Ross T. Robinson

Registration No.: 47,031

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Dated: March 7, 2005

Respectfully submitted,

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CUSTOMER NO. 23932

Docket No.: 34650-00179USC3
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Torbjörn Gärdenfors et al.

Application No.: 10/822594

Confirmation No.: 2867

Filed: April 12, 2004

Art Unit: 2635

For: RADIO TRANSCEIVER ON A CHIP

Examiner: B. A. Zimmerman

INFORMATION DISCLOSURE STATEMENT (IDS)

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated: March 7, 2005

Signature: 

(Linda Lee Andujar)

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 CFR 1.97(b)(3)).

A copy of each reference on the PTO/SB/08 is attached.

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 10-0447, under Order No. 34650-00179USC3. A duplicate copy of this paper is enclosed.

Dated: March 7, 2005

Respectfully submitted

By 

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Attorneys For Applicant



ALTERNATIVE TO PTO/SB/03a/b (03-03)

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete if Known	
				Application Number	10/822594-Conf. #2867
				Filing Date	April 12, 2004
				First Named Inventor	Torbjörn Gärdenfors
				Art Unit	2635
				Examiner Name	B. A. Zimmerman
Sheet	1	of	2	Attorney Docket Number	34650-00179USC3

U.S. PATENT DOCUMENTS				
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
	A1	US-2002/0094037	07-18-2002	Darabi et al.
	A2	US-5,937,341	08-10-1999	Suominen
	A3	US-6,427,068	07-30-2002	Suominen
	A4	US-6,631,256	10-07-2003	Suominen
	A5	US-2004/0038655	02-26-2004	Suominen
	A6	US-4,944,025	07-24-1990	Gehring et al.
	A7	US-5,003,621	03-26-1991	Gailus
	A8	US-4,653,117	03-24-1987	Heck
	A9	US-5,222,144	06-22-1993	Whitehart
	A10	US-4,852,123	07-25-1989	Bickley et al.
	A11	US-4,464,770	08-07-1984	Maurer et al.
	A12	US-5,640,698	06-17-1997	Shen et al.
	A13	US-5,850,598	12-15-1998	Behrent
	A14	US-6,226,509	05-01-2001	Mole et al.

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T ⁶
	B1	-JP A 07-254865	10-03-1995	Toshiba Corp.	Abstract
	B2	-EP 0 742 647 A1	11-13-1996	Matsushita Electric	
	B3	-WO 94/10757	05-11-1994	Data-Radio Engineering & Consulting GmbH	
	B4	-WO 97/08842	03-06-1997	Pacific Communications Sciences, Inc.	
	B5	-WO 98/08300	02-26-1998	Advanced Micro Devices, Inc.	
	B6	-EP 0 797 292 A1	09-24-1997	Philips Electronics N.V.	
	B7	-EP 1 058 396 A1	12-06-2000	Motorola, Inc.	
	B8	-WO 96/17441	06-06-1996	Matsushita Electric Industrial Co., Ltd.	Abstract

*EXAMINER Initial if information considered, whether or not citation is in conformance with MPEP 600. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T ²
	C1	D.M. BAKKER et al. "Bluetooth End to End", M&T Books, an imprint of Hungry Mind, Hungry Minds, Inc., ISBN: 0-7645-4887-5, 7 pages			
	C2	DAVID BLANKENBECKLER, "An Introduction to Bluetooth" ThinkBurst Media, Inc. www.wirelessdevnet.com/channels/bluetooth/features/bluetooth.html , pp. 1-7			
	C3	ING. ZDENEK MIKESKA, "Parameters of Bluetooth receiver and transmitter", January 2, 2004, Institute of Electrical Engineering and Communication, Brno University of Technology, Czech Republic, pp. 1-9			
	C4	HOOMAN DARABI et al., "A 2.4-GHz CMOS Transceiver for Bluetooth", IEEE Journal of Solid-State Circuits, Vol. 36, No. 12, December 2001			
Examiner Signature				Date Considered	

Substitute for form 1449/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Application Number	10/822594-Conf. #2867
				Filing Date	April 12, 2004
				First Named Inventor	Torbjörn Gärdenfors
				Art Unit	2635
				Examiner Name	B. A. Zimmerman
Sheet	2	of	2	Attorney Docket Number	34650-00179USC3

	C5	BROADCOM "BCM2002X 2.4GHz Bluetooth Frac-N-Radio" Product Brief	
	C6	PIETRO ANDREANI et al. "A CMOS gm-C IF Filter for Bluetooth", in Proceedings of CICC 2000, paper 18-6, May 2000, 4 pages	
	C7	JAN CROLS et al., "A Single-Chip 900 MHz CMOS Receiver Front-End with a High Performance Low-IF Topology", IEEE Journal of Solid-State Circuits, Vol. 30, No. 12, December 1995, Katholieke Universiteit Leuven, Heverlee, Belgium	
	C8	ASAD A. ABIDI, "Direct-Conversion Radio Transceivers for Digital Communications," IEEE Journal of Solid-State Circuits, Vol. 30, No. 12, December 1995, Katholieke Universiteit Leuven, Heverlee, Belgium, pp. 1390-1411	
	C9	M. STEYAERT, "A 1-GHz Single-Chip Quadrature Modulator", IEEE Journal of Solid-State Circuits, Vol. 27, No. 8, August 1992, pps. 1194-1197	
	C10	JACK P.F. GLAS, "Digital I/Q Imbalance Compensation in a Low-IF Receiver" IEEE Globecom, pp 1461-1466, Nov. 1998	
	C11	VITO BOCCUZZI et al., "Testing the Double Low-IF Receiver Architecture" Proceedings of the CICC, IEEE, 1997, pp. 521-524	
	C12	VALKAMA et al., "BSS Based I/Q Imbalance Compensation in Communication Receivers in the Presence of Symbol Timing Errors", Proc. Second Int. Workshop Independent Component Analysis Blind Signal Separation, Helsinki, Finland, June 2000, pp. 393-398.	
	C13	J. SEVENHANS et al., "An Analog Radio Front-end Chip Set for a 1.9 GHz Mobile Radio Telephone Application" 1994 IEEE International Solid-State Circuits Conference, February 16, 1994	
	C14	J.O. VOORMAN "Continuous-time analog integrated filters" Integrated Continuous-Time Filters, New York IEEE Press, 1993	
	C15	JAN CROLS et al., "An Analog Integrated Polyphase Filter for a High Performance Low-IF Receiver", 1995 Symposium on VLSI Circuits Digest of Technical Papers, Katholieke Universiteit Leuven, Heverlee, Belgium	
	C16	M.J. GINGELL, "Single Sideband Modulation using Sequence Asymmetric Polyphase Networks" Electrical Communication - Volume 48, Number 1 and 2 - 1973	
	C17	STEPHEN A. JANTZI, "A Fourth-Order Bandpass Sigma-Delta Modulator", IEEE Journal of Solid-State Circuits, Vol. 28, No. 3, March 1993	
	C18	JAN CROLS et al., "A 1.5 GHz Highly Linear CMOS Downconversion Mixer" IEEE Journal of Solid-State Circuits, Vol 30, No. 7, July 1995	
	C19	FLOYD M. GARDNER, Chapter 8 "Phase-Lock Receivers and Transponders," "Phase-Lock Techniques" ISBN: 0-471-04294-3, April 1979	
	C20	TRUDY D. STETZLER ET AL., "A 2.7-4.5 V Single Chip GSM Transceiver RF Integrated Circuit, IEEE Journal of Solid-State Circuits, Vol. 30, No. 12, December 1995	

*EXAMINER: Initial if information considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature		Date Considered	
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